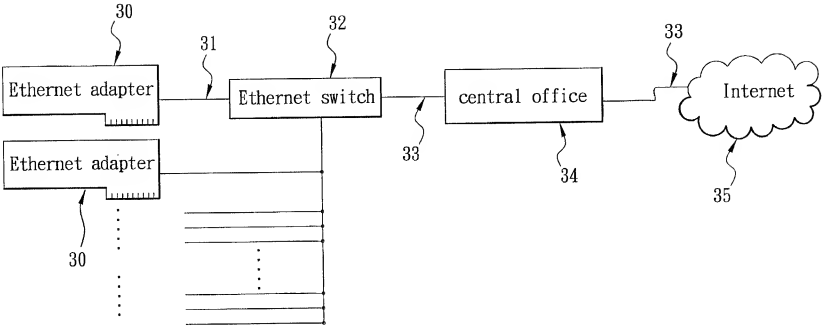

FIG. 1 (Prior Art)

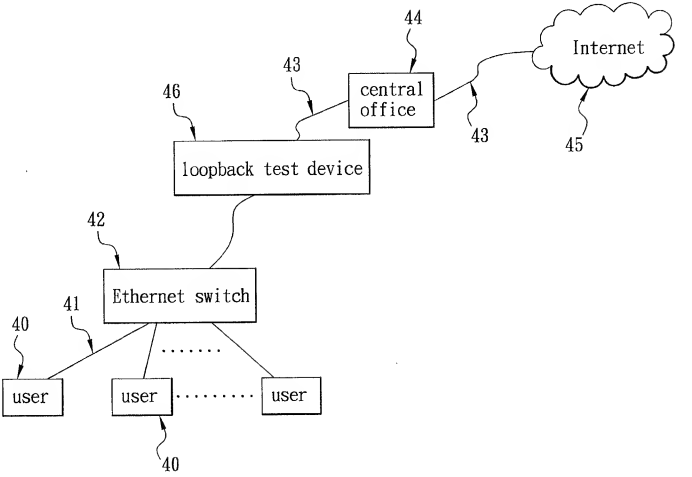
44
Internet
43
central office
46
43
45
loopback test device
42
Ethernet switch
41
40
user
user
user
40

FIG. 2

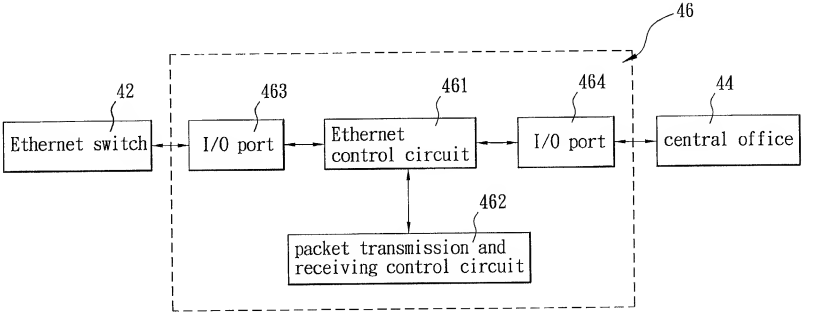
46
42
463
461
464
44
Ethernet switch
I/O port
Ethernet control circuit
I/O port
central office
462
packet transmission and receiving control circuit

FIG. 3

TOHTZT "TOSHTODT

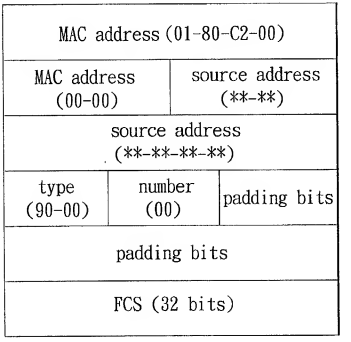

FIG. 4

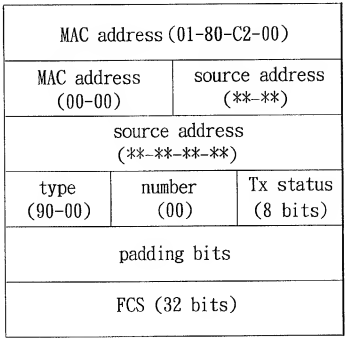

FIG. 5

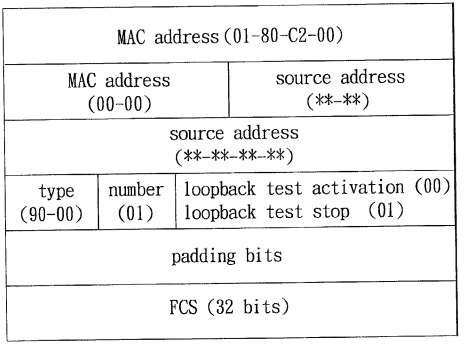
MAC address (01-80-C2-00)
MAC address (00-00)
source address (**-**)
source address (**-**-**-**)
type (90-00)
number (01)
loopback test activation (00)
loopback test stop (01)
padding bits
FCS (32 bits)

FIG. 6

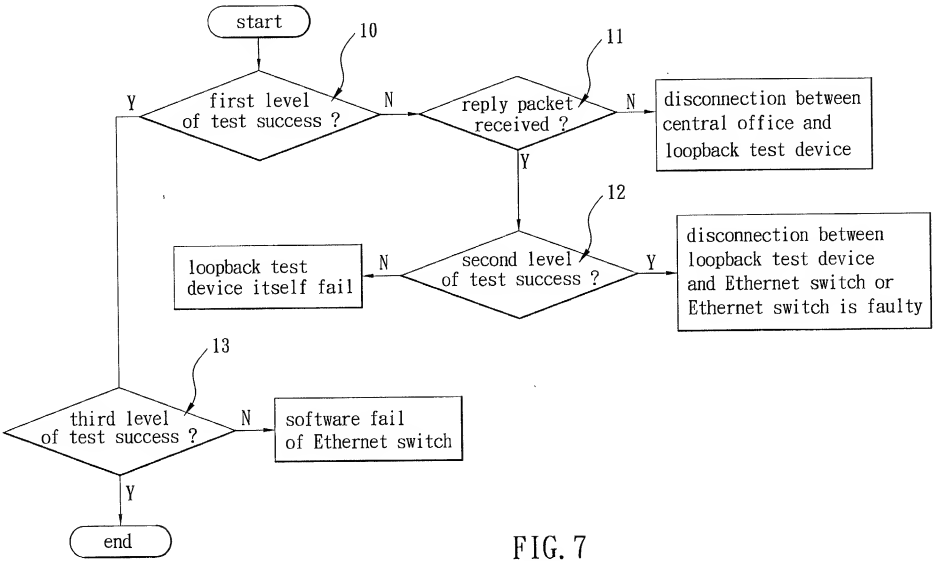
start
10
first level of test success ?
Y
N
11
reply packet received ?
N
disconnection between central office and loopback test device
Y
12
second level of test success ?
N
loopback test device itself fail
Y
disconnection between loopback test device and Ethernet switch or Ethernet switch is faulty
13
third level of test success ?
N
software fail of Ethernet switch
Y
end

FIG. 7